

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In Re Application of:

Applicant: : Thomas J. Perkowski  
Serial No. : 10/040,176  
Filing Date : October 25, 2001  
Title of Invention : METHOD OF AND SYSTEM FOR CREATING AND  
MANAGING UPN/TM/PD/URL DATA LINKS RELATING TO  
THE CONSUMER PRODUCTS OF A CENTRAL RELATION  
DATABASE MANAGEMENT SYSTEM...  
Examiner : John W. Hayes  
Group Art Unit : 3625  
Attorney Docket No. : 100-010USANA0

Honorable Commissioner of Patents  
and Trademarks  
Washington, DC 20231

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**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT**  
**UNDER 37 C.F.R. 1.97**

Sir:

In order to fulfill Applicant's continuing obligation of candor and good faith as set forth in 37 C.F.R. 1.56, Applicant submits herewith a supplemental Information Disclosure Statement prepared in accordance with 37 C.F.R Sections 1.97, 1.98 and 1.99.

The disclosures enclosed herewith are as follows:

**U.S. PUBLICATIONS**

<u>NUMBER</u>	<u>FILING DATE</u>	<u>TITLE</u>
6,199,048 B1	January 15, 1999	SYSTEM AND METHOD FOR AUTOMATIC ACCESS OF A REMOTE COMPUTER OVER A NETWORK
6,152,369	August 4, 1997	SYSTEM FOR STORING, ACCESSING AND DISPLAYING HTML ENCODED
6,138,151	September 26, 1997	NET WORK NAVIGATION METHOD FOR PRINTED ARTICLES BY USING EMBEDDED CODES FOR ARTICLE- ASSOCIATED LINKS
6,108,656	May 11, 1999	AUTOMATIC ACCESS OF ELECTRONIC INFORMATION THROUGH MACHINE-READABLE

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# CODES ON PRINTED DOCUMENTS

6,081,827	June 16, 1997	NETWORK NAVIGATION METHODS AND SYSTEMS USING AN ARTICLE OF MAIL
6,064,979	November 19, 1996	METHOD OF AND SYSTEM FOR FINDING AND SERVING CONSUMER PRODUCT RELATED INFORMATION OVER THE INTERNET USING MANUFACTURER IDENTIFICATION NUMBERS
6,045,048	April 4, 2000	SYSTEM AND METHOD FOR COMPOSING MENUS OF URL-ENCODED BAR CODE SYMBOLS WHILE SURFING THE INTERNET USING AN INTERNET BROWSER PROGRAM
6,027,024	July 3, 1997	HAND-HELD PORTABLE WWW ACCESS TERMINAL WITH VISUAL DISPLAY PANEL AND GUI-BASED WWW BROWSER PROGRAM INTEGRATED WITH BAR CODE SYMBOL READER
6,012,102	April 2, 1996	SYSTEM USING MACHINE-READABLE PRINTED SYMBOLS CREATED FROM ENCODED DATA RESOURCE SPECIFIERS TO ESTABLISH CONNECTION TO DATA RESOURCE ON DATA COMMUNICATIONS NETWORK
5,992,752	June 4, 1997	INTERNET-BASED SYSTEM FOR ENABLING INFORMATION-RELATED TRANSACTIONS OVER THE INTERNET USING JAVA-ENABLED INTERNET TERMINALS PROVIDED WITH BAR CODE SYMBOL READERS FOR READING JAVA-APPLET ENCODED BAR CODE SYMBOLS
5,995,105	October 4, 1996	METHODS AND SYSTEMS FOR PROVIDING A RESOURCE IN AN ELECTRONIC NETWORK

5,979,757	December 20, 1996	METHOD AND SYSTEM FOR PRESENTING ITEM INFORMATION USING A PORTABLE DATA TERMINAL
5,986,651	November 7, 1996	METHOD SYSTEM, AND ARTICLE OF MANUFACTURE FOR PRODUCING A NETWORK NAVIGATION DEVICE
5,978,773	October 3, 1995	SYSTEM AND METHOD FOR USING AN ORDINARY ARTICLE OF COMMERCE TO ACCESS A REMOTE COMPUTER
5,963,916	October 31, 1996	NETWORK APPARATUS AND METHOD FOR PREVIEW OF MUSIC PRODUCTS AND COMPILATION OF MARKET DATA
5,950,173	May 12, 1997	SYSTEM AND METHOD FOR DELIVERING CONSUMER PRODUCT RELATED INFORMATION TO CONSUMERS WITHIN RETAIL ENVIRONMENTS USING INTERNET- BASED INFORMATION SERVERS AND SALES AGENTS
5,940,595	September 23, 1996	ELECTRONIC NETWORK NAVIGATOR DEVICE AND METHOD FOR LINKING TO AN ELECTRONIC ADDRESS THEREWITH
5,933,829	November 8, 1997	AUTOMATIC ACCESS OF ELECTRONIC INFORMATION THROUGH SECURE MACHINE- READABLE CODES ON PRINTED DOCUMENTS
5,930,767	May 28, 1997	TRANSACTION METHODS SYSTEMS AND DEVICES
5,923,884	August 30, 1996	SYSTEM AND METHOD FOR LOADING APPLICATIONS ONTO A SMART CARD
5,918,214	October 25, 1996	SYSTEM AND METHOD FOR FINDING PRODUCT AND SERVICE RELATED INFORMATION ON THE INTERNET
5,918,213	December 22, 1995	SYSTEM AND METHOD FOR

		AUTOMATED REMOTE PREVIEWING AND PURCHASING OF MUSIC, VIDEO, SOFTWARE, AND OTHER MULTIMEDIA PRODUCTS
5,905,251	July 11, 1997	HAND-HELD PORTABLE WWW ACCESS TERMINAL WITH VISUAL DISPLAY PANEL AND GUI-BASED WWW BROWSER PROGRAM INTEGRATED WITH BAR CODE SYMBOL READER IN A HAND- SUPPORTABLE HOUSING
5,905,248	August 22, 1997	SYSTEM AND METHOD FOR CARRYING OUT INFORMATION- RELATED TRANSACTIONS USING WEB DOCUMENTS EMBODYING TRANSACTION ENABLING APPLETS AUTOMATICALLY LAUNCHED AND EXECUTED IN RESPONSE TO READING URL-ENCODED SYMBOLS POINTING THERETO
5,902,353	July 10, 1997	METHOD, SYSTEM, AND ARTICLE OF MANUFACTURE FOR NAVIGATING TO A RESOURCE IN AN ELECTRONIC NETWORK
5,903,729	July 10, 1997	METHOD, SYSTEM, AND ARTICLE OF MANUFACTURE FOR NAVIGATING TO A RESOURCE IN AN ELECTRONIC NETWORK
5,890,175	September 25, 1996	DYNAMIC GENERATION AND DISPLAY OF CATALOGS
5,869,819	April 7, 1997	INTERNET-BASED SYSTEM AND METHOD FOR TRACKING OBJECTS BEARING URL-ENCODED BAR CODE SYMBOLS
5,825,002	September 5, 1996	DEVICE AND METHOD FOR SECURE DATA UPDATES IN A SELF- CHECKOUT SYSTEM
5,715,444	October 14, 1994	METHOD AND SYSTEM FOR EXECUTING A GUIDED PARAMETRIC SEARCH.

5,640,193	August 15, 1994	MULTIMEDIA SERVICE ACCESS BY READING MARKS ON AN OBJECT
5,612,527	March 31, 1995	DISCOUNT OFFER REDEMPTION SYSTEM AND METHOD
5,600,833	March 24, 1995	ATTRIBUTE PORTION BASED DOCUMENT RETRIEVAL SYSTEM WITH SYSTEM QUERY LANGUAGE INTERFACE
5,592,378	August 19, 1994	COMPUTERIZED ORDER ENTRY SYSTEM AND METHOD.
5,572,643	October 19, 1995	WEB BROWSER WITH DYNAMIC DISPLAY OF INFORMATION OBJECTS DURING LINKING
5,448,046	August 18, 1994	ARRANGEMENT FOR AND METHOD OF EXPEDITING COMMERCIAL PRODUCT TRANSACTIONS AT A POINT-OF-SALE SITE
5,398,336	July 16, 1993	OBJECT-ORIENTED ARCHITECTURE FOR FACTORY FLOOR MANAGEMENT
5,355,472	November 19, 1990	SYSTEM FOR SUBSTITUTING TABS FOR NON-EDITABLE DATA SETS IN HYPERTEXT DOCUMENTS AND UPDATING WEB FILES CONTAINING LINKS BETWEEN DATA SETS CORRESPONDING TO CHANGES MADE TO THE TAGS
5,297,249	October 31, 1990	HYPERMEDIA LINK MARKER ABSTRACT AND SEARCH SERVICES
5,157,687	December 19, 1990	PACKET DATA COMMUNICATION NETWORK

#### FOREIGN PUBLICATIONS

<u>NUMBER</u>	<u>PUBLICATION DATE</u>	<u>TITLE</u>
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WO 99/33013	July 1, 1999	MARKET RESEARCH DATABASE HAVING HISTORICAL CONTROL DESIGNATOR
WO 99/33014	July 1, 1999	MARKET RESEARCH DATABASE CONTAINING SEPARATE PRODUCT AND NAKED PRODUCT INFORMATION
WO 99/00756	January 7, 1999	IMPROVEMENTS IN, OR RELATING TO, SYSTEMS FOR COLLECTING AND DISTRIBUTING INFORMATION
WO 98/58320	December 23, 1998	SHELF MOUNTABLE KIOSK APPARATUS
WO 98/57295	December 17, 1998	KIOSK INFORMATION AND PURCHASE SYSTEM
WO 98/51035	November 12, 1998	METHOD AND SYSTEM FOR ACCESSING ELECTRONIC RESOURCES VIA MACHINE- READABLE DATA ON INTELLIGENT DOCUMENTS
WO 98/51077	November 12, 1998	METHOD FOR EMBEDDING LINKS TO A NETWORKED RESOURCE IN A TRANSMISSION MEDIUM
WO 98/38589	September 3, 1998	IN-STORE CONSUMER TARGETED MESSAGING SYSTEM
WO 98/38761	September 3, 1998	AUTOMATIC SERVER ACCESS IN AN INTERNETWORKED COMPUTER SYSTEM
WO 98/34458	August 13, 1998	SYSTEM AND METHOD FOR DISTRIBUTING AND PROCESSING DISCOUNT COUPONS
WO 98/29822	July 9, 1998	SYSTEMS AND METHODS FOR FACILITATING THE EXCHANGE OF INFORMATION BETWEEN SEPARATE BUSINESS ENTITIES
WO 98/24036	June 4, 1998	BAR CODE SYMBOL DRIVEN SYSTEMS FOR ACCESSING INFORMATION RESOURCES ON THE

INTERNET

WO 98/24049	June 4, 1998	SYSTEM AND METHOD FOR CARRYING OUT INFORMATION- RELATED TRANSACTIONS
WO 98/21713	May 22, 1998	MERCHANDISING SYSTEM
WO 98/21679	May 22, 1998	SYSTEM AND METHOD FOR CONDUCTING COMMERCE OVER A DISTRIBUTED NETWORK
WO 98/20434	May 14, 1998	SYSTEM AND METHOD FOR DISPLAYING INFORMATION AND MONITORING COMMUNICATIONS OVER THE INTERNET
WO 98/20440	May 14, 1998	SHOPPING CART MOUNTED PORTABLE DATA COLLECTION DEVICE WITH TETHERED DATAFORM READER
WO 98/20411	May 14, 1998	AUTOMATIC ACCESS OF ELECTRONIC INFORMATION THROUGH MACHINE-READABLE CODES ON PRINTED DOCUMENTS
WO 98/19259	May 7, 1998	SYSTEM AND METHOD FOR MANAGING AND SERVING CONSUMER PRODUCT RELATED INFORMATION OVER THE INTERNET
WO 98/51036	November 12, 1998	SCANNER ENHANCED REMOTE CONTROL UNIT AND SYSTEM FOR AUTOMATICALLY LINKING TO ON- LINE RESOURCES
WO 98/06055	February 12, 1998	APPARATUS AND METHOD FOR OBTAINING INFORMATION FROM A COMPUTER NETWORK USING A SCANNER AND BROWSER
WO 98/35297	August 13, 1998	CONSUMER PROFILING SYSTEM WITH ANALYTIC DECISION PROCESSOR
WO 98/03923	January 20, 1998	WORLD WIDE WEB BAR CODE ACCESS SYSTEM

WO 97/37319	October 9, 1997	A MECHANISM FOR RETRIEVING INFORMATION USING DATA ENCODED ON AN OBJECT
WO 98/09243	March 5, 1998	SYSTEM FOR PROVIDING EASY ACCESS TO THE WORLD WIDE WEB
WO 97/01137	January 9, 1997	SYSTEM FOR USING ARTICLE OF COMMERCE TO ACCESS REMOTE COMPUTER
EP 0 744 856 A2	November 27, 1996	APPARATUS FOR AND METHOD OF UTILIZING PRODUCT IDENTIFIER CODES TO ESTABLISH COMMUNICATION CONNECTIONS
EP O 856 812 A2	May 8, 1998	PORTABLE SHOPPING AND ORDER FULFILLMENT SYSTEM
0 645 728 A2	March 29, 1995	REMOTE CONTROLLER AND TELEPHONE INCORPORATING BAR CODE READING FACILITIES

### **TECHNICAL PUBLICATIONS**

Operating manual for the QRS Keystone for Vendors (1996) by QRS Corporation, [www.qrs.com](http://www.qrs.com), pages 1-126.

Operating manual for the QRS Keystone for Retailers (1996) by QRS Corporation, [www.qrs.com](http://www.qrs.com), pages 1-115.

Investors Press Release entitled "Newest Addition to ViaLink Services: Exchange Manager" (August 1997) by Applied Intelligence Group, Inc., [http://www2.vialink.com/investors/press\\_releases/02\\_24\\_98.html](http://www2.vialink.com/investors/press_releases/02_24_98.html), pages 1-2.

Web-based technical report entitled "Amended Annual Report (10KSB) for Applied Intelligence Group, Inc." <http://www.edgar-online.com>, March 28, 1997, pages 1-55.

Draft Technical Report entitled "The Retail Store of the Future: Crest of the Third Wave" by Robert J. Corey, Ph.D. and John R. Spears, Ed.D., January 15, 1997, pages 1-45.

Investors Press Release entitled "ViaLink Item Catalog Service Goes Online" (January 1997), by Applied Intelligence Group, Inc., [http://www.vialink.com/investors/press\\_releases](http://www.vialink.com/investors/press_releases), pages 1.

Scientific publication entitled "IDOCs<sup>TM</sup> Linking the Worlds of Print and Electronic Media<sup>SM</sup>,"



by NeoMedia Technologies, Inc., September 11, 1998, pages 1-8.

Product brochure entitled "The Catalog" (1996) by QuickResponse Services Corporation, [www.qrs.com](http://www.qrs.com), pages 1-2.

Product Brochure for the PREMO WEBDOX by Premenos Corporation, Concord, CA, [www.premenos.com](http://www.premenos.com), 1997, 1 page.

Operating manual entitled "WEBDOX General Information Manual" by Premenos Corp., Concord, CA, 1996-1997, pages 1-20.

Scientific publication entitled "World-Wide Web: The Information Universe", 1996, by Tim Berners-Lee et al., CERN, 1211 Geneva 23, Switzerland, pages 1-8.

Web-based product brochure for the Synclink Item Catalog by Vialink, Inc., <http://www.vialink.com/products/products-catalog.html>, 1 page.

Product brochure for "NCR Web Kiosk Solutions" by NCR Corporation, [www.ncr.com](http://www.ncr.com), 1999, pages 1-14.

### **INTERNATIONAL SEARCH REPORTS**

App. No.

Filing Date

PCT/US97/19227

March 20, 1998

### **STATEMENT OF PERTINENCE**

U.S. Patent No. US 6,199,048 B1 to Hudetz et al. discloses a method of and system for accessing remote computers on a network using identification codes found on ordinary articles of commerce. As disclosed, a computer is provided having a database that relates Uniform Product Code ("UPC") numbers to Internet network addresses (or "URLs"). To access an Internet resource relating to a particular product, a user enters the product's UPC symbol manually, by swiping a bar code reader over the UPC symbol, or via another suitable input means. The database retrieves the URL corresponding to the UPC code. This location information is then used to access the desired information resource.

U.S. Patent No. 6,152,369 to Wilz et al. discloses a system for storing, accessing and displaying HTML-encoded documents relating to an object being worked upon in a work environment by a human operator. The human operator wears a body-wearable http-enabled client system equipped with a code symbol reader programmed to read a URL-encoded symbol on the object pointing to a HTML-encoded document stored on one or more http-enabled information servers. The http-enabled client system is connected to the information network by a two-way wireless telecommunication link. The code symbol reader is programmed for reading the URL-encoded symbol affixed to the object and automatically produces symbol character data

representative of the read code symbol and the URL encoded therewithin. The http-enabled client system also includes a network accessing mechanism and a display device. The network accessing mechanism is programmed for automatically accessing one or more of the HTML-encoded documents from one or more of the http-enabled information servers in response to symbol character data being produced by the code symbol reader. The display device is operably connected to the network accessing mechanism, for visually displaying HTML-encoded documents accessed from the http-enabled information servers in response to symbol character data being produced by the code symbol reader. As a result of the present invention, the human operator is enabled to freely review the HTML-encoded documents displayed on the display device while working with the object in diverse work environments involving, for example, inventory management, assembly-line and/or plant inspection, and craft or vehicle inspection and/or repair.

U.S. Patent No. 6,138,151 to Reber et al., discloses in Fig. 5, a method of navigating an electronic network similar to the method disclosed in U.S. Patent No. 6,199,048 B1. Specifically, a bar code symbol printed on a printed article is read by a bar code reader that is connected to a network accessing device (e.g. Internet-enabled computer). The network accessing device accesses a remote database and transmits a portion of the bar code symbol thereto, where it is translated into an electronic address corresponding to the bar code symbol. The electronic address is then transmitted back to the network accessing device, whereupon the corresponding information resource is accessed and displayed.

U.S. Patent No. 6,108,656 to Durst et al. discloses a method of and system for providing automated access to electronic information stored in a database at either a local or remote location. The system utilizes a machine-readable code printed on a document. The machine-readable code symbol comprises encoded source data, wherein the source data comprises application launch information as well as file location information (e.g. URL). The source data is encoded and printed, and then distributed by the vendor to the end user. The end user then scans the code symbol via appropriate code scanning (e.g. bar code scanning) equipment, decodes the raw decoded data, and the file location information is then used to access the appropriate information file.

U.S. Patent No. 6,081,827 to Reber et al. discloses a method of and system for delivering a message to an electronic address on an electronic network. As disclosed, the method involves reading a bar code symbol printed on or associated with an article of mail, wherein the bar code symbol uniquely identifies the article of mail to the delivery service. After the recipient receives the article of mail, the recipient uses a bar code symbol reader to read the bar code symbol, and using at least a portion of the bar code read by the recipient, the electronic address of the sender of the article of mail is determined. Then, a digital computing device, operably connected to the bar code reader, is used by the recipient to communicate a message to the electronic address of the sender.

U.S. Patent No. 6,064,979 to Perkowski discloses a method of and system for finding and serving consumer product-related information on the Internet comprising a database serving subsystem which stores: a plurality of manufacturer identification numbers (MINs) assigned to a plurality of manufacturers of consumer products; a plurality of home-page specifying URLs symbolically linked to the plurality of MINs; a plurality of universal product numbers (UPN) assigned to a plurality of consumer products made by the plurality of manufacturers; and a

plurality of product-information specifying URLs symbolically linked to the plurality of UPNs. During operation, a client subsystem transmits to the database serving subsystem a request for information which includes the UPN assigned to the consumer product on which product-related information is being sought. The database serving subsystem automatically compares the UPN against the stored plurality of MINs, and automatically returns to the client subsystem, one or more of URLs symbolically linked to the UPN, if URLs have been symbolically linked to the UPN within the database serving subsystem. However, if no URLs have been symbolically linked to the UPN, then the database serving subsystem automatically returns the home-page specifying URL symbolically linked to the MIN contained within the UPN in the request. By virtue of this novel MIN-based search mechanism embodied within the database serving subsystem, client subsystems are automatically provided with the home-page of the manufacturer's World Wide Web (WWW) site in situations where product-information specifying URLs have not yet been symbolically linked with the UPN on any one of the manufacturer's products.

U.S. Patent No. 6,045,048 to Wilz, Sr. et al. discloses a computer-based system provided for composing menus of URL-encoded bar code symbols specifying the location of Internet-based information resources on the Internet. In the illustrative embodiment, the system comprises a computer system operably connectable to the Internet and including a visual display screen, a keyboard, and printer. The system also includes a GUI-based Internet browser program and a URL-menu composition program supported by the computer system. The function of the GUI-based Internet browser program is to enable a user to access and display Internet-based information resources stored on an Internet information server at a location specified by a Uniform Resource Locator (URL). The function of the URL-menu composition program is to enable the user to compose a menu of URL-encoded bar code symbols while surfing the Internet using the GUI-based Internet browser program. After the menu of URL-encoded bar code symbols has been composed, it may be edited and then printed on a selected print medium. By virtue of the present invention, any Internet-based information resource can be automatically accessed and displayed by reading its URL-encoded bar code symbol from the printed menu using a bar code symbol reader operably connected to an Internet-enabled computer system supporting a bar code driven Internet browser program.

U.S. Letters Patent No. 6,027,024 to Knowles discloses a hand-held portable Internet access terminal having a visual display panel and a GUI-based web browser program integrated with a bar code symbol reader for accessing information resources on the Internet using URL-encoded bar code symbols.

U.S. Letters Patent No. 6,012,102 to Schchar, like US Patent No. 5,640,193 to Wellner, discloses in Fig. 1, a system for accessing a HTML-encoded document stored on an electronic network (e.g. WWW) at a particular electronic address (i.e. Uniform Resource Locator --URL-- or Internet Protocol --IP--address), by reading a URL or IP address encoded bar code symbol with a bar code reader that is operably connected to a computer-based (Internet-enabled) data communications terminal.

U.S. Patent No. 5,992,752 to Wilz et al. discloses a method of and system for enabling information-related transactions over the Internet using Java-enabled internet terminals provided with bar code symbol readers for reading Java-applet encoded bar code symbols.

U.S. Patent No. 5,995,105 to Reber et al. discloses a method of and system for automatically linking a user to an information resource at a network address on an electronic network. The system comprises a physical network navigation device (e.g. plastic or paper card or substrate) bearing a human-viewable image (e.g. logo) indicative of the information resource in the electronic network, and also a machine-readable code (e.g. bar code symbol) which is encoded with the network address (e.g. URL, IP address, etc.). The machine readable code is read by a data reader, and produces data representative of the network address, which is communicated to a network access device (e.g. network computer, internet television or portable wireless device) having a display device. The network access device then uses the network address to access the information resource and display the same on the display device. Alternatively, the machine readable code is read by a data reader, and produces data representative of the information resource, which is communicated by a network access device (e.g. network computer, internet television or portable wireless device) having a display device, to a node which translates (e.g. converts) the code into an network address for the information resource. The network access device then uses the network address to link to the information resource and then communicates the content thereof to the user for display on the display device.

U.S. Patent No. 5,979,757 to Tracey et al. discloses a portable shopping system, in which a portable terminal includes a bar code symbol reader for identifying items for sale (i.e. by reading bar code symbols thereon), and an audio and visual presentation device for providing customer-specific marketing files to the customer in response to reading URL-encoded bar codes in order to promote the sale of the identified item. A preferred alternative embodiment of the present invention includes machine readable coded labels having one or more remote file locations, such as uniform resource locators ("URLs") used to reference sites on the world wide web. These URLs are used by the portable terminal to retrieve data files including items such as prices, nutritional data, coupon availability, promotions, marketing data and general interest data from various local and remote addresses available over a wireless communication network. The machine coded labels are preferably encoded with a high-density bar code such as PDF417. These URLs can be presented on the terminal display in the form of a hyperlink which submits a data retrieval request to a remote address upon selection. The displayed hyperlink could be presented on the display as either a direct address (URL) or a highlighted title for the address.

U.S. Patent No. 5,986,651 to Reber et al. discloses a method of and system for automatically linking a user to information resources located at network addresses on an electronic network. The system comprises a physical network navigation device or network address guide (e.g. plastic or paper card or substrate) bearing a plurality of human-readable images (e.g. textual information) indicative of a plurality of information resources in the electronic network, and also a plurality of machine-readable codes (e.g. bar code symbols), each being encoded with a network address (e.g. URL, IP address, etc.) associated with one of the plurality of information resources. In accordance with the disclosed method of network navigation, a human uses a data reader (e.g. bar code reader) to read a machine readable code (e.g. bar code symbol) associated with a human-readable image (e.g. WWW site name) of an information resource which the human seeks to access. The data reader produces data representative of the network address, which is communicated to a network access device (e.g. network computer, internet television or portable wireless device) having a display device. The network access device then uses the network address to automatically access the information resource and display the same on the display device.

U.S. Patent No. 5,978,773 to Hudetz et al. discloses a system and method for using identification codes found on ordinary articles of commerce to access remote computers on a network. In accordance with one embodiment of the invention, a computer is provided having a database that relates Uniform Produce Code ("UPC") numbers to Internet network addresses (or "URLs"). To access an Internet resource relating to a particular product, a user enters the product's UPC symbol manually, by swiping a bar code reader over the UPC symbol, or via other suitable input means. The database retrieves the URL corresponding to the UPC code. This location information is then used to access the desired resource.

U.S. Patent No. 5,963,916 to Kaplan discloses a system for on-line user-interactive multimedia based point-of-preview. The system provides for a network website and accompanying software and hardware for allowing users to access the website over a network such as the Internet via a computer. The user is uniquely identified to the website server through an identification name or number. The hardware associated with the website includes storage of discrete increments of pre-selected portions of music products for user selection and preview. After user selection, a programmable data processor selects the particular prerecorded music product from data storage and then transmits that chosen music product over the network to the user for preview. Subscriber selection and profile data (i.e. demographic information) can optionally be collected and stored to develop market research data. The network website can be accessed from a publicly accessible kiosk, available, e.g. at a retail store location, or from a desktop computer.

U.S. Patent 5,950,173 to Perkowski discloses a method of and system for finding and serving consumer product-related information over the Internet to consumers in retail shopping environments, as well as at home, at work, and on the road. The system includes Internet information servers which store information pertaining to Universal Product Number (e.g. UPC number) preassigned to each consumer product registered with the system, along with a list of Uniform Resource Locators (URLs) that point to the location of one or more information resources on the Internet, e.g. World Wide Web-sites, which related to such registered consumer products. Upon entering the UPC number into the system using a conventional Internet browser program running on a computing system, the menu of URLs associated with the entered UPC number is automatically displayed for user selection. The displayed menus of URLs are categorically arranged according to specific types of product information such as, for example: product specifications and operation manuals; product wholesalers and retailers; product advertisements and promotions; product endorsements; product updates and reviews; product warranty/servicing; related or complementary products; product incentives including rebates, discounts and/or coupons; manufacturer's annual report and 10K information; electronic stock purchase; etc. Web-based techniques are disclosed for collecting the UPC/URL information from manufacturers and transmitting the same to the Internet-based databases of the system.

U.S. Patent No. 5,940,595 to Reber et al. discloses a method of and system for navigating an electronic network, wherein a bar code reader connected to an Internet-enabled computer system shown in Fig. 7 is used to read a URL-encoded bar code label printed on a network navigation device (e.g. document), and the URL is then provided to the computer system to access the information resource on the electronic network, and display the same on the display screen of the computer system.

U.S. Patent No. 5,933,829 to Durst et al. discloses a secure system and method for

providing automated access to electronic information stored in a database in either a local or remote location. The system utilizes a machine-readable code printed on a document, referred to herein as an intelligent document since it stores information used to automatically access the information. The machine-readable symbol is encoded with source data (including a file location pointer) that is first obfuscated by generating a checksum of the source data, encrypting the source data by using the checksum as an encryption key, and assembling the checksum with the encrypted source data prior to encoding. The machine-readable symbol is then printed and distributed by the vendor by any logical means to the end user. The end user then scans the code via appropriate code scanning (e.g. bar code scanning) equipment, and de-obfuscates the scanned data by parsing the checksum, decrypting the remainder of the scanned data string (which includes the file location pointer) using the parsed checksum as a decryption key, computing a checksum of the decrypted data string, and comparing the computed checksum with the parsed checksum to determine the validity of the code. The file location pointer is then used to access the appropriate file. In a preferred embodiment, a Web browser program is launched, and the URL of the vendor's Web site is accessed through the Internet.

U.S. Patent No. 5,930,767 to Reber et al. discloses a computer-assisted transaction method involving the use of a transaction terminal having a bar code symbol reader. The bar code reader is used to first read a first data element encoded within a first bar code on a substrate, so as to indicate an item in a transaction. Then the bar code reader is used to read a second data element encoded within a second bar code so as to indicate a party to the party transaction. The second data element is then authenticated, and upon authentication, the transaction is approved, and a record thereof is created.

U.S. Patent No. 5,923,884 to Peyret discloses a system for loading an applet and its associated use rights into a smart card having other applets with associated use rights with values that change as the application is used is provided that stores, remotely from said smart card, an applet and use rights with a predetermined initial value, associated with the applet, and has a smart card having a processing unit, and a memory unit, the memory unit being connected to the processing unit and storing a second application having use rights. The smart card may be connected to said remote storage means, and the application, having use rights with a predetermined value, may be loaded from said remote storage means into said smart card. A smart card is also provided having a processor for executing an application, a memory, connected to the processor, for storing multiple applications, including a first application having first use rights and having first values associated with the first use rights, the first value changing from a predetermined initial value with use of the first use rights, a system for loading in the smart card a second application from a remote location over an interface, the second application having second use rights, a system for storing said second application into said memory in said smart card, and a system for changing the use rights of said first application and said second application. A method of replenishing the use rights in a smart card is also provided.

U.S. Patent No. 5,918,214 to Perkowski discloses a method of and system for finding product and service related information on the Internet. The system includes Internet Servers which store information pertaining to Universal Product or Service Number (e.g. UPC number) preassigned to each product and service registered in the system, with Uniform Resource Locators (URLs) that point to the location of one or more information resources on the Internet, e.g. World Wide Websites, related to such products or services. Each client computer system includes an Internet browser provided with an "Internet Product/Service Information (IPSI)

Finder" button and a "Universal Product/Service Number (UPSN) Search" button. The system enters its "IPSI Finder Mode" when the "IPSI Finder" button is depressed and enters the "UPSN Search Mode" when the "UPSN Search" button is depressed. When the system is in its IPSI Finder Mode, a predesignated information resource (e.g. advertisement, product information, etc.) pertaining to any commercial product or service registered with the system is automatically accessed from the Internet and displayed from the Internet browser by simply entering the registered product's UPN or the registered service's USN into the Internet browser. When the system is in its "UPSN Search Mode," a predesignated information resource pertaining to any commercial product or service registered with the system is automatically accessed from the Internet and displayed from the Internet browser by simply entering the registered product's trademark(s) or (servicemark) and/or associated company name into the Internet browser.

U.S. Patent No. 5,918,213 to Bernard, et al. discloses a method of and system for automated previewing and purchasing of music, video, software and other multimedia products using a remote communication medium such as a telephone, a direct data link, or a network connection (e.g. Internet).

U.S. Patent No. 5,905,251 to Knowles discloses a method of and system for accessing information resources on the WWW by reading URL-encoded bar code symbols printed on objects using a mobile Internet-access terminal having an integrated bar code symbol reader and Web-enabled browser program.

U.S. Letters Patent No. 5,905,248 to Russell et al. discloses a transaction-enabling method and system, wherein a transaction-enabling Java-Applet is embedded within an HTML-encoded document stored in an HTTP server at predetermined URL. When a code symbol (e.g., magstripe or bar code) encoded with the URL is read using a code symbol reader interfaced with a Java-enabled Internet terminal, the corresponding HTTP document is automatically accessed and displayed at the terminal, and the transaction-enabling Java-Applet initiated for execution so that the customer, consumer or client desiring the transaction can simply and conveniently conduct the information-related transaction over the Internet.

U.S. Patent No. 5,902,353 to Reber et al. discloses a method of and system for automatically linking a user to information resources located at network addresses on an electronic network. The system uses a data reader (e.g. OCR device or page reader) for capturing an image of a network navigation device or network address guide (e.g. plastic or paper card or substrate). As shown in Fig. 2, the navigation device bears a plurality of printed human-readable images (e.g. textual information) indicative of a plurality of information resources in the electronic network, and also a plurality of machine-readable codes (e.g. bar code symbols) printed on the network navigation device, each encoded with a network address (e.g. URL, IP address, etc.) associated with an information resource. Then, an electronic image of the read data produced by the data reader, is supplied to a computer programmed to recognize the characters, images and textual information representative of navigational instructions (i.e. URLs) to information resources on the electronic network. The recognized data is used to create a data structure representative of a URL list (i.e. menu) which contains URLs and related information recognized in the electronic image. As shown in Fig. 6, the URL list is then displayed to the user in a menu bar 200 of an Internet browser display screen. From the list, the user can select a displayed indication of an information resource, and in response thereto, automatically connect to the information resource over the electronic network, receive the content of the information

resource, and display the same on the browser display screen. Information resources indicated on the browser display screen can be tagged by the user to indicate that a particular information resources has been accessed or should be accessed.

U.S. Patent No. 5,903,729 to Reber et al. discloses a method of and system for automatically linking a user to an information resource located at a network address on an electronic network. The system comprises using a data reader (e.g. OCR device or page reader) for capturing an image of a network navigation device or network address guide (e.g. plastic or paper card or substrate). As shown in Fig. 2, the network navigation device bears a plurality of printed human-readable images (e.g. textual information) indicative of a plurality of information resources in the electronic network, and also a plurality of machine-readable codes (e.g. bar code symbols) printed on the network navigation device, each encoded with a network address (e.g. URL, IP address, etc.) associated with an information resource. Then, an electronic image of the read data produced by the data reader, is supplied to a computer programmed to recognize the characters, images and textual information representative of navigational instructions (i.e. URLs) to information resources on the electronic network. The recognized data is used to create a data structure representative of a URL list (or menu) which contains URLs and related information recognized in the electronic image. As shown in Fig. 6, the URL list or menu is then displayed to the user in a menu bar 200 of an Internet browser display screen. From this menu the user can select a displayed indication of an information resource, and in response thereto, automatically connect to the information resource over the electronic network, receive the content of the information resource, and display the same on browser display screen. Information resources indicated on the browser display screen can be tagged by the user to indicate that a particular information resources has been accessed or should be accessed.

U.S. Patent No. 5,890,175 to Wong et al. discloses a computerized method for dynamically generating and displaying a catalog including a plurality of items, each item being classified by at least group information and product information. The method allows a merchant user to generate a catalog by classifying new items by entering into pre-defined fields at least group and product information text for each item, and by optionally specifying a multimedia object associated with the new item, where each field optionally has an associated link to a linked object. The user selects a display template which defines a pre-designed catalog page layout having generally designated areas for placement of text and multimedia objects relating to an associated item. After the user inputs information regarding an item into the form fields, the field contents are associated with corresponding areas of the selected template. The field contents are then stored as a part of a page of the catalog. Upon receiving a request to display a page, the stored field contents are retrieved and checked as to whether the requested page includes any multimedia objects. If so, the logical framing for each area designated for placement of multimedia objects is adjusted to accommodate all of the multimedia objects. The retrieved field contents, including any associated links to linked objects, of the requested page are then combined with the display template to generate a display page, which is displayed to a consumer.

U.S. Patent No. 5,869,819 by Knowles et al. discloses a method of and system for tracking objects (e.g. packages) bearing URL-encoded bar code symbols.

U.S. Patent No. 5,825,002 to Roslak discloses a data processing and retrieval system for use in a self-checkout system utilized in a retail facility. A plurality of customers are provided



with portable data collecting terminals, each having a bar code reader. Once the data is collected using the portable data terminal, a record of the session is uploaded to a customer's data file upon the entry of an authorization code. In the event errors occur during data entry, or in the entry of the authorization codes, a customer service desk is provided which assists the customer in completing the transaction.

US Patent No. 5,715,444 to Danish et al. discloses a system and method for searching a product information database using guided parametric searching techniques.

US Patent No. 5,640,193 to Wellner discloses a system and method for accessing multimedia information resources stored in information servers in an information network. The network address (e.g. URL) of a particular information resource is encoded within the structure of a bar code symbol placed on an object or article associated therewith, which is related to the particular information resource in some manner. When the bar code symbol is read using a bar code symbol reader connected to client terminal, the recovered network address is used to access the information resource from the network and displayed the same for the use and enjoyment of the user.

US Patent No. 5,612,527 to Ovadia discloses a system for redeeming bar coded discount offer flyers by reading a bar coded consumer identification card provided to the consumer, and then reading the bar coded discount offer flyer in order to redeem the offer and track the consumer purchasing habits.

U.S. Patent No. 5,600,833 to Senn et al. discloses a system for retrieval of documents in a client-server environment. The system provides compatibility between an attribute based document display system and diverse query languages within remote document repositories. The system includes a local process running on a client module, and a remote process running within each document repository. Each remote process is designed for the particular model of computer used for the server. Each remote process executes a System Query Language used by a particular database program running on the server. A particular server may have several database programs implemented thereon, and each database program has a dedicated remote process, where the remote process is matched to the particular database program. The local process on the user's workstation launches inquiries in a first format on the network. Each remote process receiving an inquiry translates the received inquiry into the System Query Language required by its server and its database program. When the database program returns a response to the System Query language inquiry, the remote process translates the response into the first format, and returns the response to the local process by transmitting a reply over the network.

US Patent No. 5,592,378 to Cameron et al. discloses a client-server type information network which enables a customer using a client machine to (i) search a database server for information about products offered for sale, as well as (ii) place an order to purchase a particular product.

U.S. Patent No. 5,572,643 to Judson discloses a method of browsing the Worldwide Web of the Internet using an HTML-compliant client supporting a graphical user interface and a browser. The method begins as a web page being displayed on the graphical user interface, the webpage having at least one link to a hypertext document preferably located at a remote server.

In response to the user clicking on the link, the link is activated by the browser to thereby request downloading of the hypertext document from the remote server to the graphical user interface of the client. While the client waits for a reply and/or as the hypertext document is being downloaded, the browser displays one or more different types of informational messages to the user. Such messages include, for example, advertisements, notices, messages, copyright information and the like.

U.S. Patent No. 5,448,046 to Swartz discloses a method of updating inventory markings by reading bar code symbols on products using a portable bar code symbol reader, and then using such bar code information to access product price and identify information from a database.

U.S. Patent No. 5,398,336 to Tantry discloses an object-oriented architecture for a factory floor management software system in which factory floor entities are modeled as factory objects within a relational database. The architecture includes X-terminal or bar code devices for facilitating user interaction with the system via one or more of the factory floor entities; Application Engines for processing user interaction of events and generating application service requests; and Application servers for processing the application service requests and generating database service requests in response. These database service requests are utilized to retrieve, manipulate and update data stored within the relational database. Communication Managers are employed for coordinating interprocess communication between the Application Engines, the Application Servers, and the Database Servers. Each of these major components are distributed among computer resources that are networked across the factory floor.

U.S. Patent No. 5,355,472 to Lewis discloses a hypertext data processing system wherein data sets participating in the hypertext document may be edited, the data processing system inserting tags into the data sets at locations corresponding to the hypertext links to create a file which is editable by an editor and the data processing system removing the tags, generating a revised data set and updating the link information after the editing process.

U.S. Patent No. 5,297,249 to Bernstein et al. discloses a set of hypermedia linking services enabling client applications to incorporate hypermedia capabilities in an open system architecture. The users are provided with a consistent hypermedia interface completely managed by the hypermedia services and not by the client application itself. The graphical user interface includes methods for menu handling, dialog box presentation and pointing device message handling (e.g., mouse message handling). Normal hypermedia activities such as object management, object creation, object deletion and object modification is provided. In addition, an open system searching mechanism is provided to satisfy broad non-context requests for information by the user without sacrificing the advantages of an open hypermedia environment.

U.S. Patent No. 5,157,687 to Tymes discloses a packet data transmission system which is used to link a number of remote hand-held data-gathering units such as bar code readers to a central computer which maintains a database management system. Data packets are sent from the remote units by an RF link to intermediate base stations, and then sent by the base stations to the central computer by a serial link. Direct sequence spread spectrum modulation is used for the RF link. The remote hand-held units initiate an exchange using RF transmission to and from the base stations, receiving only during a rigid time window following a transmission from the remote unit. The base stations cannot initiate communication to the remote units, but instead

send data to the remote units only as part of the exchange.

WIPO Publication No. 99/33013 discloses a market research database which contains a plurality of sets of product related information. Each set of product related information relates to a corresponding market aspect of products. For example, a set may relate to packages in which products are contained, another set may relate to brand names of products, still another set may relate to business enterprises which package, distribute, or market products, and so on. Each set includes a current layer of product related information, wherein the current layer of product related information is in current time. The product related information in the current layer of each set of product related information includes a control designator. The control designator permits direct access to the current layer of product related information substantially exclusive of other product related information.

WIPO Publication No. WO 99/33014 discloses a market research database which includes industry code information containing industry codes (such as UPCs), naked product information containing information about naked products, package information containing information about packages, and product definition information linking naked product information, package information, and industry codes. Accordingly, the storage of information in the database is not dependent upon UPCs or other industry codes, making access to product related information difficult. The use of naked product information, together with the way of identifying products, facilitate a third normal form data-base.

WIPO Publication No. WO 99/00756 discloses a system and method for collecting and distributing information using an electronic medium such as the Internet, and in particular, a system and method for providing customer care service (CCS) to system users. Information on a company offering products and/or services for sale using the Internet, is distributed to system users (consumers) on request, and the distributed information is based on information collected from system users, relating to those of the selling companies from whom products and/or services for sale using the Internet, is distributed to system users (consumers), on request. The distributed information is based on information collected from system users relating to those of the selling companies from whom products and/or services have been obtained by the system users. The collected information relates to each system user's trading experiences with the selling companies and facilitates the provision of a customer care service to system users. The customer care service is offered by a CCS operator in collaboration with the selling companies, and enables a selling company to represent itself as a reliable and responsible supplier through use of statistics from actual customers' experiences of the company. Since all the advertising is handled by an independent third party company, the customer care service gives a selling company the opportunity to advertise itself as a reliable and responsible supplier, on the basis of statistics derived from actual customers' experiences of the company.

WIPO Publication No. WO 98/58320 discloses a small, shelf-mountable kiosk unit for providing product and/or service information and for processing customer orders. A customer may actuate the kiosk through a programmed source of information in the kiosk located at a facility such as a health care provider facility.

WIPO Publication No. WO 98/57295 discloses a kiosk system for providing information to customers and for processing customer orders for items through kiosk units. A customer may place an order by selecting items from an electronic catalog located at a facility such as a

pharmacy. The kiosks include a printer placement, monitor installation, a magnetic strip reader for accepting credit card or debit card transmissions, a UPC bar code scanner for scanning bar codes on product labels to automatically provide on screen information. Purchase orders may be transmitted to one or more distribution center computers where they are processed and filed.

WIPO Publication No. WO 98/51035 discloses a method of and system for accessing electronic resources on the World Wide Web (WWW) by reading machine-readable data (e.g. a URL-encoded bar code symbols) printed on documents.

WIPO Publication No. WO 98/51077 discloses a method of providing a link between an information signal (e.g. broadcast, cable television and/or radio signal) and networked information resources on the Internet.

WIPO Publication No. WO 98/38589 discloses a system for use in a retail store that permits consumers to identify themselves to an in-store merchandising system prior to check-out. As a result, the consumer may be presented with promotional offers and other information specifically targeted to the particular consumer. The consumer may be identified in a number of ways, such as by swiping magnetic cards and card readers attached to shopping carts. Promotional offers made to the consumer may be based on previous habits of the particular consumer, the consumer's location in the store, demographics, or purchase triggers. A consumer may also receive targeted information with respect to particular items considering purchase such as, for example, to determine the appropriateness of purchasing particular food items and prescription medication and/or over the counter drugs. Retailers and product manufacturers may therefore use information to better plan product placement, to be more responsive to customer demand, and to otherwise understand the purchasing habits of their customers.

WIPO Publication No. WO 98/38761 discloses a method of and system for accessing information resources on the WWW by reading a URL-encoded bar code symbol printed on a document. As disclosed, a bar code symbol reader is used to read a URL-encoded bar code symbol, and a Web-enabled browser program, operably connected to the bar code reader, accesses the information resource located at the URL, and displays the same for viewing by the user.

WIPO Publication No. WO 98/34458 discloses a system for dispensing and redeeming electronic discount coupons in a store. A card-dispensing kiosk collects information from a customer and subsequently issues a "smart card" for storing electronic coupons. Upon completion of shopping, the customer redeems the electronic coupons at the check-out area, by inserting the card into the check-out station. During checkout, when UPC product data corresponds to coupons stored on the card, the customer is credited with the value of the corresponding coupon.

WIPO Publication No. WP 98/29822 discloses systems, methods, and computer program products which synchronize product fabrication schedules with supplier schedules. A fabrication schedule is obtained from a fabricator data processing system, and supplier schedules are obtained from respective supplier data processing systems. Restrictive links are established between the fabrication schedule and the supplier schedules. Each restrictive link defines the supplier that will perform a work stage, and can also define the starting and ending times for both fabrication and supplier schedules. Float time preceding a selected activity starting time is

assigned and utilized to absorb delays in completing activities preceding the selected activity. A computer based product catalog system automatically distributes and updates product information.

WIPO Publication No. WO 98/24036 discloses a bar code symbol driven system for accessing information resources from information servers connected to communication networks, including the Internet. The system includes a bar code symbol reader for reading bar code symbols encoded with information representative of information resources stored in information servers connected to the Internet and supporting the TCP/IP standard. A computing platform is provided for supporting an Internet browser. A telecommunication modem is operably connected to the computing platform in order to establish a two way telecommunication link between the Internet browser and an Internet service provider connected to the Internet. In response to reading bar code symbols, the Internet browser automatically accesses information resources from Internet information servers using the information encoded in bar code symbols read by the bar code symbol reader.

WIPO Publication No. WO 98/24049 discloses a novel transaction method and system, wherein a transaction Java-Applet is embedded within an HTML-encoded document stored in an HTTP server at a predetermined URL. When a code symbol encoded with the URL is read using a code symbol reader interfaced with a Java-enabled Internet terminal, the corresponding HTML document is automatically accessed and displayed at the terminal, and the transaction Java-Applet initiated for execution so that the customer, consumer or client desiring the transaction can simply and conveniently conduct the information-related transaction over the Internet. The transaction-enabling Internet terminal can be in the form of an Internet kiosk installed in a public location, such as conventional ATMs.

WIPO Publication No. WO 98/21713 discloses a host computer which is used as the overall control point of a merchandising system. The host computer is interconnected to a brand corporation computer wherein a manufacturer, distributor, or other entity supplying products and offering discounts on products can update the host computer with information relative to specific products. The host computer is also interconnected to an in-store computer which serves as an interface to consumer interface kiosks and in-store points of sale. The host computer is used to track consumer buying behavior through information provided by a point-of-sale. The host computer analyzes the information according to brand and retail criteria, and based on a consumer specific profile, a consumer specific discount is determined for each consumer for each product on promotion in the program. A discount may be provided by the retail store and/or the brand corporation. When a consumer is specifically identified at a kiosk, a customized list of discounts is printed for the specific consumer. The list includes the new "targeted net price" for the promoted product, which is the store price less the consumer specific discounts. This price is automatically applied to that product at the point of sale. Consumer home shopping behavior may also be used to refine the consumer profile. Additionally, the consumer profile may be used to target discount and promotions to home shoppers. The consumer profile may also be used for determining specific consumers that should be offered free product promotional offers. The behavior of the consumer after receiving the free product sample is used to refine the consumer profile and to evaluate the efficacy of the free product sample transaction.

WIPO Publication No. WO 98/21679 discloses a system for and method of conducting

commerce over a distributed network to manage merchant and product information in an electronic shopping basket, payment source information in an electronic wallet, and shipping address information in an electronic address book, all of such information being stored on a consumer computer. A commerce client running on the consumer computer is configured as a MIME handler and extends the functionality of a standard Web browser to support computer based shopping. A merchant site Web server provides HTML-coded Web documents which describe merchant products and which host computer-based shopping options. The HTML-coded Web documents contain function-calling information by which consumer selected options invoke shopping related functions on either the merchant (server) computer (104) or the consumer (client) computer.

WIPO Publication No. WO 98/20434 discloses a system for and method of creating, transmitting, and receiving web pages from a web server. The present invention enables a user to create a new web site by either creating new web pages or extracting information from previously created web pages. The invention enables a web site master to control the entire presentation of data to the user. In one embodiment of the present invention, a web site can include a first web page having a main menu. The present invention then permits the web site master to prepare a preset sequence of web pages that are displayed to the user for each menu item. The user of the web page selects one menu item from a menu display and then can passively receive information in a logical sequence. The control of the web page sequence can be used by advertisers, for example, to effectively present all information deemed helpful in attempting to convince the user to use the advertised product or service. In contrast to conventional web sites, a user accessing a web site developed according to the present invention will have a predefined sequence of web pages displayed in order to maximize the benefit to the web site master, e.g., to increase the behavioral modifications of the client due to controlled advertising. The present invention also increases the effectiveness of web sites having multiple web pages by using an artificial intelligence preloading methodology to reduce the delay in displaying a web page on the user's computer.

WIPO Publication No. 98/20440 discloses a portable data collection device adapted to be mounted to a shopping cart. The device includes a housing having a clamping assembly for releasably clamping the housing to a pushing bar of a shopping cart. The housing defines an interior region supporting device electronics. The device further includes an interactive touch sensitive visual display screen, and a retractable, tethered dataform reader releasable mounted on the housing. When mounted on the housing, an imaging assembly and an illumination assembly of the reader are continuously actuated to read a dataform presented to the reader. When removed from the housing, the reader is actuated by depressing a trigger on the reader. The device also includes a magnetic stripe reading assembly, a printer and communications circuitry including a radio communicator module. A locator provides position information of the portable collection device relative to a distribution facility via data interchange with a plurality of transceivers. Information selectively obtained from the transceivers allows for selective retrieval and display of information on the visual display screen which is keyed to product type or location of the portable collection device.

WIPO Publication No. WO 98/20411 discloses using an integrated "mouse-type" bar code scanner 34, as disclosed in US Patent No. 5,448,050, in order to read a URL encoded bar code symbol, to provide the symbol character data thereof to a client computer 32 running an Internet browser program, as shown in Fig. 1, and thus access an information resource located at

the specified URL.

WIPO Publication No. WO 98/19259 by Assignee of record, and to which the present Application claims priority, discloses using a conventional bar code symbol reader to read a UPC label on product which, in turn, is used to access a corresponding URL in the database for accessing a HTML-encoded document on the WWW by providing the accessed URL to a client computer having an Internet browser program.

WIPO Publication No. WO 98/51036 discloses a scanner-enhanced remote control unit and system for automatically linking to on-line information resources. As disclosed, the scanner-enhanced remote control unit includes a bar code symbol reader for reading URL-encoded bar code symbols printed on documents, and automatically linking to the information resource located at the encoded URL.

WIPO Publication No. WO 98/06055 discloses, in Fig. 2e and at lines 1-5 of Page 8, using a connector 221 to connect a bar code scanner device 219 to the I/O port 220a of a portable digital assistant (PDA) containing an Internet browser 106 and decoder software 115, so that an operator can scan an URL-encoded bar code and automatically address a Web page specified thereby. As disclosed, the PDA 220 is connected to the Internet and/or intranet computer network via a wireless connection 218.

WIPO Publication No. WO 98/35297 discloses a system which processes information to identify product choices within a product domain for a user, and presents structured data concerning attributes of products in the product domain to the user in a readily understandable and efficient manner, allowing the user to make the best choice according to his or her own personal profile. A user interface presents a sequence of input prompts to the user to gather preference and requirement data for a plurality of attributes of products in the product domain. A decision engine is coupled to the user interface and filters the product domain to present a set of products according to the gathered preference and requirement data as product choices to the user.

Like US Patent Nos. 5,978,773 and 6,199,048 B1, both to Hudetz, et al, WIPO Publication No. WO 98/03923 discloses the use of a UPC/URL database in order to translate UPC numbers read from consumer products by a bar code scanner, into the URLs of published information resources on the WWW relating to the UPC-labeled consumer product.

WIPO Publication No. WO 97/37319 discloses, at lines 13-32 on Page 12 and in Figs 1B and 3 thereof, a system for serving product information to consumers using a UPC product database (136 in Figs 1B and 3), similar to the one disclosed in WIPO Publication No. WO 97/01137 (Hudetz, et al./Solar Communications, Inc.) and EPO Publication No. EPO744856 (Penzias/ATT&T IPM, Inc. As disclosed in WIPO publication No. WO 97/37319, a bar code symbol reader (118) connected to a client computer system (104, 106, 112) is used to read a UPC (117) on a consumer product (115), and then the recovered UPC number is used to access the UPC product database (136) and access URL information (325) keyed to the inputted UPC number. The client computer system (102) then uses the URL to access product information (such as product name, unit price, and product location in store) for display to the consumer.

WIPO Publication No. WO 98/09243 discloses the use of four-digit jump codes which

can be used to access the URL of a desired web site stored in a database operably connected to a Web site (e.g. the JumpCity Web Site). When the user is on-line at the special web site, entering in the four digit jump code automatically links the user to the Web site (corresponding to the jump code) to the JumpCity Web site, thus providing immediate access to the desired Web site for the user, without inputting the URL or address of the Web site.

Like U.S. Patent No. 6,199,048 B1 to Hudetz et al., WIPO Publication No. WO 97/01137 discloses using a conventional bar code symbol reader 44 to read a UPC label 48 on a product which, in turn, is used to access a corresponding URL in database 60 for accessing a HTML-encoded document on the WWW by providing the accessed URL to a client computer 28 having an Internet browser program.

EPO Publication No. EP 0 744 856 A2 discloses using a conventional bar code symbol reader 112 to read a UPC label 112 on a product which, in turn, is used to access a corresponding network address (e.g. URL) in database 141 for accessing an information service 150 on a communication network (e.g. PTSN or WWW) by using the accessed network address to establish a communication connection between the user's computer terminal 120 and the multi-media information service 150.

EPO Publication No. EP 0 856 812 A2 discloses a portable shopping and order fulfillment system, wherein a portable data terminal having a bar code symbol reader is used to read bar code symbols on consumer products in order to look up pricing and other product information maintained within the retailer's database.

EPO Publication No. EP 0 645 728 A2 discloses in Fig. 9A a hand-held portable remote controller for a TV and VCR which includes a bar code symbol reader for enabling the user to scan in program times from bar code symbols printed in TV guides.

QRS's January 1998 Keystone Vendor operating manual describes the QRS Keystone system as having a centralized relational database of product and UPC information for facilitating vendors' ability to update their product catalogs and keep product information current and vital. Electronic Data Interchange (EDI) is the medium that both the vendor uses to send product information and retailers use to request and retrieve product information. Vendors load their product information, via EDI, into the data base. In turn, Retailer trading partners access this database to retrieve the information.

QRS's January 1998 Keystone Retailer operating manual provides a description of the QRS Keystone Retailer Database wherein, on Page 7 thereof, it states that the QRS Keystone Retailer Database facilitates manufacturers (i.e. vendors) to maintain a catalog of product and UPC information for transmission to the QRS Keystone Database using EDI technologies, and subsequent access by subscribing retailers (e.g. trading parties) who also use EDI techniques to access the catalog and purchase consumer products from the QRS catalog. As detailed on page 87-89, the QRS Keystone Database does not enable retailer trading parties to access URLs pointing to consumer product information on the WWW (and linked) to UPC information, or according to different information category types.

The March 28, 1997 Form 10KSB for Applied Intelligence Group, Inc. (now viaLink, Inc.) and viaLink's January 6, 1997 press release entitled "ViaLink Item Catalog Service Goes



On-line" describes on pages 4-5 that the viaLink Item Catalog System and Service enables retail chains to develop and then maintain a "pricebook" database which contains information for all items offered for sale by the retailer in the store. The pricebook typically contains descriptions of the items, along with their Universal Product Codes ("UPCs"), purchase costs, retail sales prices, and any discounts or rebates to be received from the supplier. A subscribing retailer can use the viaLink Item Catalog Service to electronically retrieve product item information (e.g., item numbers, UPCs, descriptions, pricing information, deal and promotional pricing) that has been placed in the database by manufacturers, wholesalers, or other product suppliers. This information can be electronically loaded into the retailer's pricebook, which helps the retailer improve the accuracy and reliability of the pricebook. Product manufacturers can use its viaLink service to efficiently introduce new products, by electronically providing product and pricing information to retailers and wholesalers. Wholesalers and other suppliers can use the viaLink system and service to electronically provide product and pricing information to retailers by placing this information in the viaLink databases, and allowing the retailers to access these prices via the Internet. As disclosed, the databases in the viaLink Item Catalog System are specifically designed to manage the complexity of the arrangements that exist between retailers and their wholesalers and suppliers (i.e. manufacturers), especially related to prices and promotions.

The scientific publication entitled "The Retail Store of the Future: Crest of the Third Wave" by Robert J. Corey et al., discloses at pages 30-31, that the "retailer must also provide technology-related activities and management support that will create individual customer interface and information systems, enhance technologically advanced consumer information access and purchase opportunities, incorporate and maintain applicable hardware and software to support customer transactions, and institute performance systems based on the lifetime value of the customer rather than short-term sales gains.

The NeoMedia Technologies article entitled "IDOCs Linking the Worlds of Print and Electronic Man" describes a technology based on an invention described in U.S. Patent No. 6,199,048, in which a document is printed with a physical code similar to a hyperlink on a web page, that points to relevant data or processes on the Internet.

The product brochure for QRS Corporation's "The Catalog" describes a centralized product database that uses the retail industry standard UPC numbering system to create an electronic UPC catalog of various products accessible to vendors and retailers twenty four hours a day. After assigning a UPC number to each item, the manufacturer organizes and sends the data, via an 832 EDI transmission, or tape to QRS to be loaded into the Catalog. Changes to the data can be made on a daily basis. Retailers with access to a manufacturer's data can view and download the data once it has been added or updated.

The Premenos product brochure entitled "" Premo Webdox--Extending the Reach of Electronic Commerce" describes high-level features of the Premenos Webdox electronic data interchange (EDI) system which, as described in the present Specification, can be used to help enable EDI capabilities between manufacturer-operated client subsystems and the UPN/TM/PD/URL relational database management subsystem (RDBMS) of the present invention.

The Premenos "Webdox General Information Manual" describes the structure and functions of the Premenos Webdox electronic data interchange (EDI) system in detail, which, as

described in the present Specification, can be used to help enable EDI capabilities between manufacturer-operated client subsystems and the UPN/TM/PD/URL relational database management subsystem (RDBMS) of the present invention.

The pioneering paper entitled "World Wide Web: The Information Universe (1996)" by Tim Berners-Lee et al discloses the data model and protocols required to implement the World Wide Web (WWW), and compares them with various prior art systems.

The web-based product brochure for Vialink's syncLink<sup>SM</sup> Item Catalog describes an Internet-accessible shared database that allows retailers and suppliers to exchange product, price, and promotion information electronically.

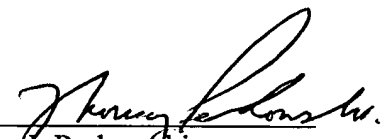
The NCR Web Kiosk Solutions product brochure describes the features of the NCR 7401 Web Kiosk, which include full-motion video and audio, Internet browsers, wireless communications and connectivity for various peripherals, such as scanners, printers, speakers and magnetic stripe readers.

A separate listing of the above references on PTO Form 1449, and a compact disc containing copies of these references in pdf format are enclosed herewith for the convenience of the Examiner.

The Commissioner is hereby authorized to charge any fee deficiencies or overpayments to Deposit Account No. 16-1340. A copy of this page is enclosed herewith.

Respectfully submitted,

Dated: December 18, 2002

  
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Substitute for form 1449A/PTO

**INFORMATION  
DISCLOSURE STATEMENT  
BY APPLICANT**

Sheet

1

of

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**Complete If Known**

Application Number	10/040,176
Filing Date	October 25, 2001
First Name Inventor	Thomas J. Perkowski
Group Art Unit	3625
Examiner Name	John W. Hayes
Attorney Docket Number	100-010USANA0

**RECEIVED**

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**GROUP 3600**

**U.S. PATENT DOCUMENTS**

Examiner Initials	Cite No.	U.S. Patent Documents		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Intn'l Class / Sub Class
		Number	Kind Code (if known)			
		6,199,048 B1		Hudetz et al.	03/06/2001	G06F 3/05
		6,152,369		Wilz et al.	11/28/2000	G06K 07/10
		6,138,151		Reber et al.	10/24/2000	
		6,108,656		Durst et al.	08/22/2000	
		6,081,827		Reber et al.	06/27/2000	G06F 15/16
		6,064,979		Perkowski	05/16/2000	G06F 17/60
		6,045,048		Wilz, Sr. et al.	04/04/2000	G06K 7/10
		6,027,024		Knowles	02/22/2000	G06K 7/10
		6,012,102		Shachar	01/04/2000	G06F 15/16
		5,992,752		Wilz, Sr. et al.	11/30/1999	G06K 7/10

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		Number	Kind Code (if known)			
		5,995,105		Reber et al.	11/30/1999	G06F 15/00
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		5,986,651		Reber et al.	11/06/1999	G06F 3/00
		5,978,773		Hudetz et al.	11/02/1999	
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		5,933,829		Durst et al.	08/03/1999	G06F 017/00
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		5,905,251		Knowles	05/18/1999	G06K 7/10

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		5,890,175		Wong et al.	03/30/1999	G06F 3/00
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		5,825,002		Roslak	10/20/1998	
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		5,612,527		Ovadia	03/18/1997	G06K/15/00
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		Operating manual for the QRS Keystone for Vendors (1996) by QRS Corporation, <a href="http://www.qrs.com">www.qrs.com</a> , pages 1-126.
		Operating manual for the QRS Keystone for Retailers (1996) by QRS Corporation, <a href="http://www.qrs.com">www.qrs.com</a> , pages 1-115.
		Investors Press Release entitled "Newest Addition to ViaLink Services: Exchange Manager" (August 1997) by Applied Intelligence Group, Inc., <a href="http://www2.vialink.com/investors/press_releases/02_24_98.html">http://www2.vialink.com/investors/press_releases/02_24_98.html</a> , pages 1-2.
		Web-based technical report entitled "Amended Annual Report (10KSB) for Applied Intelligence Group, Inc." <a href="http://www.edgar-online.com">http://www.edgar-online.com</a> , March 28, 1997, pages 1-55.
		Draft Technical Report entitled "The Retail Store of the Future: Crest of the Third Wave" by Robert J. Corey, Ph.D. and John R. Spears, Ed.D., January 15, 1997, pages 1-45.
		Investors Press Release entitled "ViaLink Item Catalog Service Goes Online" (January 1997), by Applied Intelligence Group, Inc., <a href="http://www.vialink.com/investors/press_releases">http://www.vialink.com/investors/press_releases</a> , pages 1.
		Scientific publication entitled "IDOCs™ Linking the Worlds of Print and Electronic Media <sup>SM</sup> " by NeoMedia Technologies, Inc., September 11, 1998, pages 1-8.
		Product brochure entitled "The Catalog" (1996) by QuickResponse Services Corporation, <a href="http://www.qrs.com">www.qrs.com</a> , pages 1-2.
		Product Brochure for the PREMO WEBDOX by Premenos Corporation, Concord, CA, <a href="http://www.premenos.com">www.premenos.com</a> , 1997, 1 page.
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		Scientific publication entitled "World-Wide Web: The Information Universe", 1996, by Tim Berners-Lee et al., CERN, 1211 Geneva 23, Switzerland, pages 1-8.
		Web-based product brochure for the Synclink Item Catalog by Vialink, Inc., <a href="http://www.vialink.com/products/products-catalog.html">http://www.vialink.com/products/products-catalog.html</a> , 1 page.
		Product brochure for "NCR Web Kiosk Solutions" by NCR Corporation, <a href="http://www.ncr.com">www.ncr.com</a> , 1999, pages 1-14.

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		PCT	WO 99/33013		A.C. Nielsen Company, Schaumburg IL	07/01/1999	G06F 17/60	
		PCT	WO 99/33014		A.C. Nielsen Comp[any, Schaumburg IL	07/01/1999	G06F 17/60	
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		PCT	WO 98/58320		Pinnacle Int. Propty. Serv. Int., Paradise Val. NV	12/23/1998	G06F 15/00	
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		PCT	WO 98/51035		Neomedia Technologies, Inc.; Ft. Myers FL	11/12/1998		
		PCT	WO 98/51077		Neomedia Technologies, Inc.; Ft. Myers FL	11/12/1998		
		PCT	WO 98/38589		Inframedia Corporation, Framingham MA	09/03/1998	G06F 17/60	
		PCT	WO 98/38761		Neomedia Technologic, Inc.; Ft. Myers FL	09/03/1998		
		PCT	WO 98/34458		Powell	08/13/1998	not classified	
		PCT	WO 98/29822		Building Net, Inc.; Durham NC	07/09/1998	G06F 17/60	
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		Office	Number	Kind Code (if known)				
		PCT	WO 98/24049		Metrologic Instruments, Inc.	06/04/1998		
		PCT	WO 98/21713		Leville et al.	05/22/1998	G11B	
		PCT	WO 98/21679		Microsoft Corporation, Redmond WA	05/22/1998	G06F 17/60	
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		PCT	WO 98/20440		Telxon Corporation, Akron OH	05/14/1998	G06F 17/60	
		PCT	WO 98/20411		Neomedia Technologies, Inc.	05/14/1998		
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		Office	Number	Kind Code (if known)				
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		PCT	WO 98/09243		Internet Media Corporation; Brooklyn, NY	03/05/1998		
		PCT	WO 97/01137		Solar Communications, Inc.	01/09/1997		
		EP	EP 0 744 856 A2		AT&T IPM Corp., Coral Gables, FL	11/27/1996	H04M 3/42	
		EP	0 645 728 A2		Symbol Technologies, Inc., Bohemia NY	03/29/1995	G06K 7/10	

PUBLICATIONS		
Examiner Initials	Cite No.	Description
		PCT/US97/19227, 1998

**EXAMINER**

**DATE CONSIDERED**

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance not considered. Include copy of this form with next communication to applicant.

**(INFORMATION DISCLOSURE STATEMENT – SECTION 9 PTO-1449)**